

What is claimed is:

1. A less than 1 horsepower Tesla-type turbine/generator, comprising:
at least two disks having a diameter of less than 10 cm, journaled for rotation
in a chamber and defining a stator/rotor system of the turbine/generator;
5 the disks defining at least one inter disk space measuring less than one tenth of
a diameter;
the chamber having a fluid inlet and outlet structured in combination with the
disks such that fluid radially and inwardly traverses an inter disk path between inlet
and outlet; and
10 a source of pressurized fluid in fluid communication with an inlet.
2. The apparatus of claim 1 including an outlet located centrally with
respect to a disk.
3. The apparatus of claim 1 wherein the disks have a diameter of less than
or equal to 1 cm.
- 15 4. The apparatus of claims 1 or 3 wherein the inter disk spacing is less
than 1 20th of a disk diameter.
5. The apparatus of claims 1 or 3 wherein the disks define a centrally
located, unobstructed fluid path for nonturbulent exhaust.
6. The apparatus of claims 1 or 3 wherein an inter disk space is less than
20 or equal to 0.1 mm.
7. The apparatus of claim 1 wherein a disk side contains a protrusion.
8. The apparatus of claim 1 including a chamber fluid inlet located
peripherally with respect to a disk outer edge and a chamber fluid outlet located
peripherally above or below a plurality of disks.
- 25 9. The apparatus of claim 1 including at least five disks.
10. The apparatus of claim 1 wherein the disks are attached in parallel.
11. The apparatus of claim 1 including at least three disks.
12. The apparatus of claim 1 wherein the pressurized fluid includes
combustion gas.
- 30 13. The apparatus of claims 1, 9 or 11 that includes at least a top or bottom
disk defining a second inter disk spacing of at least three times a first inter disk
spacing.
14. The apparatus of claim 1 wherein a set of magnetic regions are
located on a disk and a set of conducting regions are located on a chamber wall.
15. The apparatus of claim 1 wherein a disk edge contains a protrusion.

16. The apparatus of claim 13 wherein a set of magnetic regions are located on a disk and a set of conducting regions are located on a chamber wall.

17. The apparatus of claim 1 wherein the stator/rotor system comprises a shaftless generator, the generator including a set of conducting regions and a set of
5 opposing magnetic regions, each located upon one of a disk or a chamber wall.

18. A method of generating less than 1 horsepower, comprising:
spiraling pressurized fluid generally inwardly through at least one inter disk
space defined between a plurality of disks journaled for rotation in a chamber;
defining an inter disk space of less than .5 mm;
10 rotating the disks with the fluid; and
generating the power electrically by the movement of conducting regions
through magnetic fields, the movement occasioned by the rotation.

19. The method of claim 18 including nonturbulently, substantially
unobstructedly exhausting fluid centrally from an inter disk space.

20. The method of claim 18 including rotating Tesla-type turbine disks by
15 spiraling fluid through an inter disk space of less than or equal to .1 mm.

21. A less than 1 horsepower Tesla type turbine/generator, comprising:
means for rotating a plurality of disks in a chamber by circulating pressurized
fluid radially inwardly through an inter disk space of less than or equal to 1cm, the
20 inter disk space defined by a plurality of disks of diameter of less than or equal to
10cm; and

means for generating the power, associated with the chamber and rotating
disks.

22. The apparatus of claim 21 including means for nonturbulently exhausting
25 fluid centrally from an inter disk space.

23. A less than 1 horsepower Tesla type turbine/generating method,
comprising:

a step for rotating a plurality of disks in a chamber by circulating pressurized
fluid radially inwardly through an inter disk space of less than or equal to 1cm, the
30 inter disk space defined by a plurality of disks of diameter of less than or equal to
10cm; and

a step for generating less than 1 horsepower associated with the chamber and
rotating disks.

24. The turbine/generator of claim 21 wherein the disks are of a diameter of less than or equal to 1 cm and the inter disk space is less than or equal to .5 mm.

25. The generating method of claim 23 wherein the disks are of a diameter of less than or equal to 1 cm and the inter disk space is less than or equal to .5 mm.

5 26. A matrixed array of miniature/micro-scale less than 1 horsepower Tesla type turbines structured in combination as a generator.

27. The method of claims 18 or 23 including constructing the turbine/generator using MEMS.

28. The turbine of claim 1 constructed essentially of a silicon.

10 29. The method of claims 18 or 23 including constructing the turbine/generator using web processing.

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